

WHAT IS CLAIMED IS:

1. A method for controlling transmit power in a wireless communications system, comprising:

- 5 (a) determining a bit error rate for an orthogonal code included in a frame transmitted by the wireless communications system; and
(b) adjusting transmit power in the wireless communications system based on the determined bit error rate.

10 2. The method of claim 1, wherein the determining step further comprises calculating the bit error rate for the orthogonal code and then estimating the bit error rate for the frame based on the calculation.

15 3. The method of claim 1, wherein the orthogonal code replaces a header in the frame transmitted by the wireless communications system.

4. The method of claim 1, further comprising mapping the header to the orthogonal code using a table, wherein the table associates the headers to the orthogonal codes.

20 5. The method of claim 1, wherein the mapping step is performed at call set up.

6. The method of claim 1, wherein the orthogonal code replaces padding bits in the frame transmitted by the wireless communications system.

25 7. The method of claim 1, wherein the estimating step comprises extrapolating the bit error rate for the frame from the bit error rate for the orthogonal code.

8. An apparatus for controlling transmit power in a wireless communications system, comprising:

- 30 (a) means for determining a bit error rate for an orthogonal code included in a frame transmitted by the wireless communications system; and

(b) means for adjusting transmit power in the wireless communications system based on the determined bit error rate.

9. The apparatus of claim 8, wherein the means for determining further
5 comprises means for calculating the bit error rate for the orthogonal code and means for estimating the bit error rate for the frame based on the calculation.

10. The apparatus of claim 8, wherein the orthogonal code replaces a header in
10 the frame transmitted by the wireless communications system.

11. The apparatus of claim 8, further comprising means for mapping the header
to the orthogonal code using a table, wherein the table associates the headers to the
orthogonal codes.

12. The apparatus of claim 8, wherein the means for mapping is performed at
15 call set up.

13. The apparatus of claim 8, wherein the orthogonal code replaces padding bits
in the frame transmitted by the wireless communications system.

14. The apparatus of claim 8, wherein the means for estimating comprises means
for extrapolating the bit error rate for the frame from the bit error rate for the orthogonal
code.

15. A method for re-transmitting frames with errors in a wireless
25 communications system, comprising:

(a) determining whether a frame was received in error during a transmission in the
wireless communications system; and

(b) increasing transmit power for a re-transmission of the frame received in error in
30 the wireless communications system.

16. The method of claim 15, wherein the increasing step comprises immediately increasing the transmit power in when the frame is received in error.

17. The method of claim 15, wherein the increasing step comprises increasing
5 the transmit power in accordance with the frame's number.

18. The method of claim 15, wherein the increasing step comprises increasing the transmit power in accordance with an amount of data transmitted.

10 19. The method of claim 15, wherein the increasing step comprises increasing the transmit power by steps when one or more starting frames are received in error.

20. An apparatus for re-transmitting frames with errors in a wireless communications system, comprising:

15 (a) means for determining whether a frame was received in error during a transmission in the wireless communications system; and

(b) means for increasing transmit power for a re-transmission of the frame received in error in the wireless communications system.

20 21. The apparatus of claim 20, wherein the means for increasing comprises means for immediately increasing the transmit power in when the frame is received in error.

22. The apparatus of claim 20, wherein the means for increasing comprises means for increasing the transmit power in accordance with the frame's number.

25 23. The apparatus of claim 20, wherein the means for increasing comprises means for increasing the transmit power in accordance with an amount of data transmitted.

24. The apparatus of claim 20, wherein the means for increasing comprises
30 means for increasing the transmit power by steps when one or more starting frames are received in error.

25. A method for re-transmitting frames with errors in a wireless communications system, comprising:

- 5 (a) determining whether a portion of a frame was received in error during a transmission in the wireless communications system; and
- (b) invoking a re-transmission of the portion of the frame received in error without invoking a re-transmission of the entire frame in the wireless communications system.

10 26. The method of claim 25, wherein the frame includes an indicator field comprised of a plurality of bits and one of the bits in the indicator field indicates a parity for the portion of the frame received in error.

15 27. The method of claim 25, wherein the portion comprises a subset of bits in the frame.

28. The method of claim 25, wherein each bit in a particular position of the indicator field represents the parity for the subset of bits in the same relative position in a data portion of the frame.

20 29. An apparatus for re-transmitting frames with errors in a wireless communications system, comprising:

- (a) means for determining whether a portion of a frame was received in error during a transmission in the wireless communications system; and
- 25 (b) means for invoking a re-transmission of the portion of the frame received in error without invoking a re-transmission of the entire frame in the wireless communications system.

30 30. The apparatus of claim 29, wherein the frame includes an indicator field comprised of a plurality of bits and one of the bits in the indicator field indicates a parity for the portion of the frame received in error.

31. The apparatus of claim 29, wherein the portion comprises a subset of bits in the frame.

32. The apparatus of claim 29, wherein each bit in a particular position of the
5 indicator field represents the parity for the subset of bits in the same relative position in a data portion of the frame.